ESTIMATES OF THE POPULATION OF VIRGINIA COUNTIES AND CITIES: 1984 AND 1985

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POPULATION CHANGE IN VIRGINIA, 1980-85

This publication contains 1980 Census counts, final 1981-84 population estimates, and provisional 1985 estimates for each county and independent city in Virginia. They were developed in cooperation with the United States Bureau of the Census, under the auspices of the Federal-State Cooperative Program for Population Estimates.

The latest estimates indicate that as of 1985, half way through the current decade, growth patterns quite different from those of the 1970s have become well established. These patterns and some of the interesting ways in which Virginia's population is changing include the following:

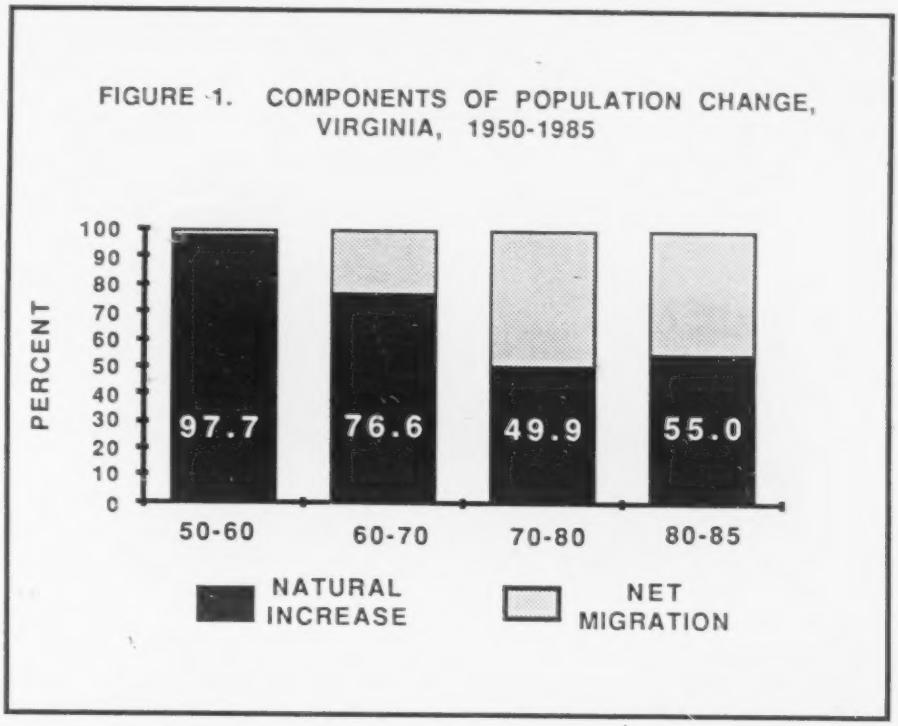
- The most recent estimates indicate that the population of Virginia is currently 5,706,300. This represents a gain of 359,400 persons, or 6.7 percent, since 1980.
- The 1980-85 average annual increase of 1.2 percent is slightly slower than the 1.4 percent that occurred during the 1970s.
- Population growth is highly concentrated within the State. Seventy-three percent of the State's 1980-85 growth has taken place in only 18 of its localities.
- Although these 18 high-growth localities account for nearly three-fourths of the State's population gain, they contain only 12 percent of the State's total land area.
- Since 1980, metropolitan localities have grown at four times the rate of nonmetropolitan areas. This reverses a trend of the 1970s, when nonmetropolitan areas grew at a slightly faster rate than metropolitan areas.
- County and city growth trends are also changing. During the 1980s, cities and counties have been growing at virtually the same rate. During the 1970s, counties grew at 11 times the rate of cities.
- An important reason for this shift is net migration. Between 1970 and 1980, cities experienced a net outmigration of population. Since 1980, cities have had net inmigration of population.
- Since the 1950s, the mechanisms of population growth in Virginia have changed dramatically. Natural increase now accounts for about 55 percent of the population increase. During the decade of the 1950s, natural increase accounted for almost 98 percent of all growth.

MECHANISMS OF POPULATION CHANGE

Population change can result from either or both of two mechanisms: natural increase and net migration. Natural increase is the difference between the number of

births and deaths occurring in the area; net migration is the difference between the number of people who moved in and the number of people who moved out. Both can be either positive or negative.

Figure 1 shows that over the past several decades the relative influence of natural increase and net migration on Virginia's population has changed. Between 1950 and 1980, the contribution of natural increase to the State's total population growth declined steadily, from 98 percent during the 1950s to 77 percent during the 1960s to 50 percent during the1970s. During the first half of the 1980s, however, natural increase has again become the major growth mechanism in the State. This trend is due not to increased fertility rates but to an increase in the number of women in the child-bearing years. While families continue to be smaller than those of previous decades, and the number of childless couples larger, women born during the baby boom are now becoming mothers, producing a "baby boomlet" of their own.



The second mechanism of population change is migration. Figure 2 shows that the pattern of net migration in Virginia is similar to, but not identical with, the pattern of population change. Most areas which lost population had negative net migration. The largest group of such localities is located in Southside Virginia. However, comparing Figures 2 and 3 shows that a number of localities with modest 1980-85 population gains nonetheless had negative migration rates. In these areas, natural increase was sufficient to offset the losses resulting from outmigration.

Although the cities of Alexandria, Hampton, and Roanoke exhibited this pattern, most of these localities were rural counties. One group of such counties is located in the south central part of the State and includes Campbell, Pittsylvania, and Patrick. A second group is located in the Shenandoah Valley and extends from Rockbridge County to Rockingham County. This group also includes the independent cities of

FIGURE 2.
NET MIGRATION IN VIRGINIA LOCALITIES, 1980-85

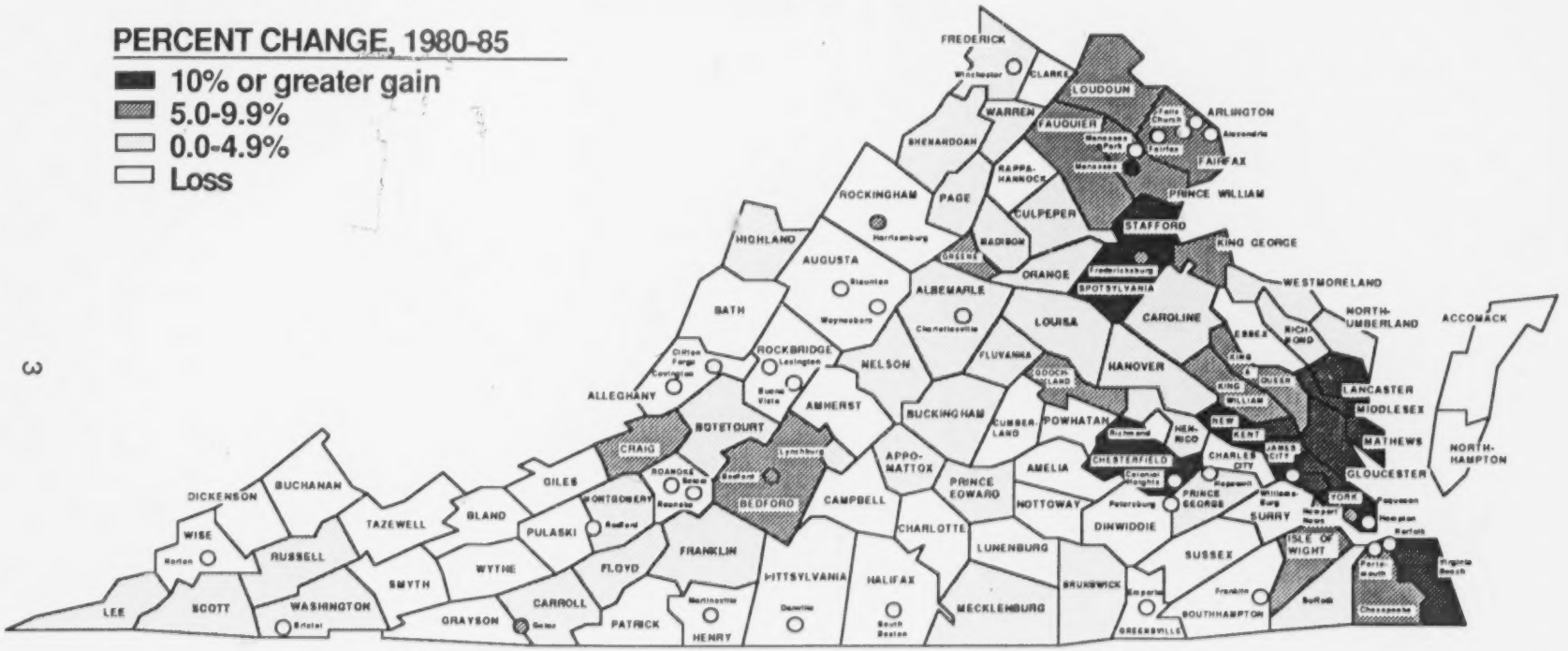
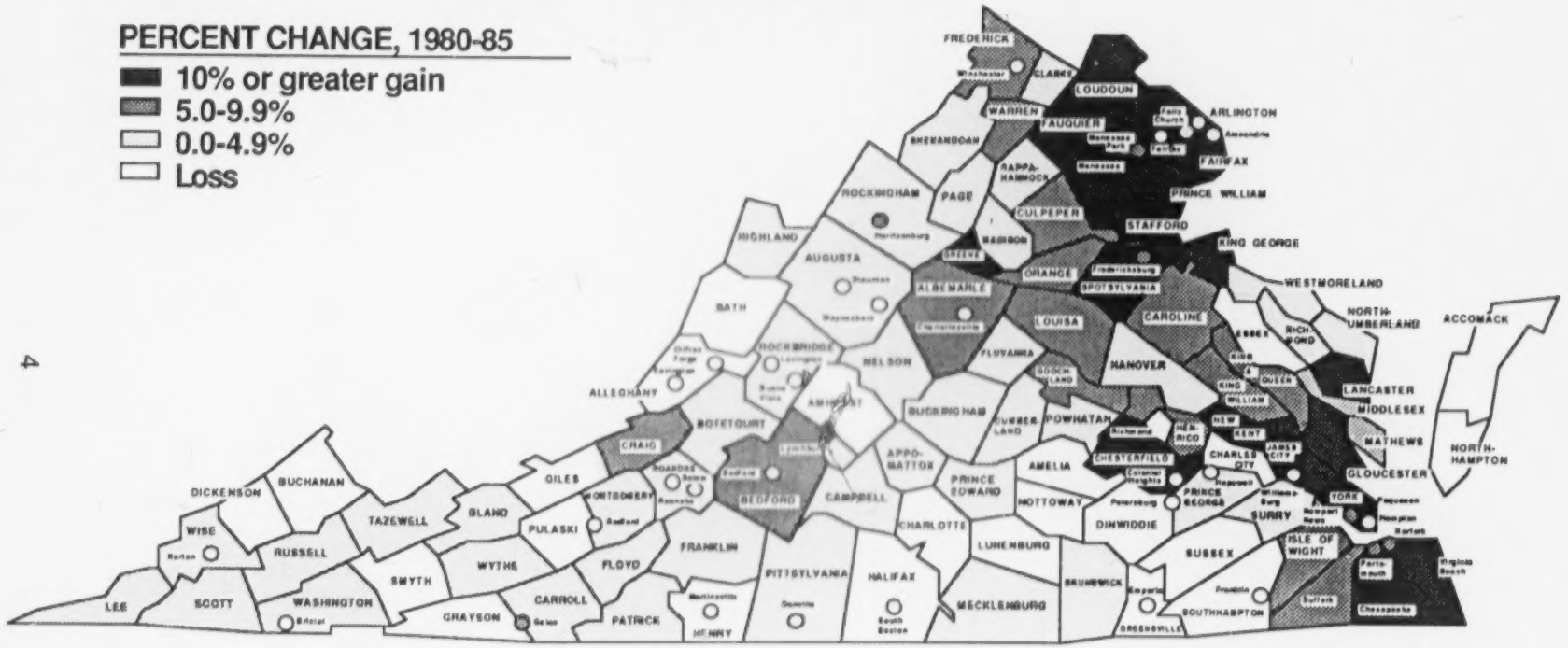


FIGURE 3.
POPULATION CHANGE IN VIRGINIA LOCALITIES, 1980-85



Buena Vista and Lexington, located within the boundaries of Rockbridge. A third group of localities experiencing both growth and outmigration is located in southwest Virginia and includes the six counties of Bland, Dickenson, Russell, Tazewell, Wise, and Wythe.

Birth rates, death rates, and migration rates are influenced by many factors, including economic trends, lifestyle preferences, and local conditions. Moreover, each of these factors interacts with the others. For example, growth in Northern Virginia has a great deal to do with its proximity to Washington, DC and the jobs and amenities it provides. Consequently, net migration accounts for over half of the total estimated growth in this area since 1980. The Norfolk MSA, where defense-related industry is important, shows a similar pattern. On the other hand, the major source of employment in southwestern Virginia, mining, has had a mixed picture since 1980. And although the area has grown, it has done so largely as a result of natural increase rather than net inmigration. Similarly, Albemarle County and Montgomery County both experienced considerable growth during the 1970s as a result of the expansion of the universities located in their jurisdictions. During this period, a majority of the growth resulted from net inmigration. Between 1980 and 1985, expansion of both universities slowed considerably. As a result, the relative importance of the growth mechanisms in these areas has changed. In both Albemarle and Montgomery, inmigration has slowed and natural increase has become the major mechanism of population growth.

Both economic and personal preference factors have played a part in suburbanization, a growth-producing trend that has been historically important in Virginia—as it has in the nation as a whole—and which continues to be important in the 1980s. During its initial stages following World War II, suburbanization was largely a matter of preferred residence. Given the opportunity, people who worked in the city or migrated there in search of jobs chose to live in an environment they considered more conducive to family life, a preference encouraged by the availability of relatively inexpensive single-family housing. Since that time, however, the nature of suburbanization has changed. Business and industry have moved into what were formerly bedroom communities, and in some places inter- and intrasuburb commuting has become as common as suburb-central city commuting. This development fosters not only growth within suburbs but also the suburbanization of formerly rural localities, a change typified in Virginia by the addition of Stafford County to the Washington DC metropolitan area in 1983. In Figure 3, suburban growth is particularly noticeable in Bedford and Craig counties, neither of which is currenly part of an MSA but both of which are adjacent to one or more such areas.

Population growth can also be a sudden, one-time occurrence. An example is the opening of a single large institution. In recent years, the Virginia Department of Corrections opened two large facilities, one in Brunswick County and the other in Nottoway County. The result was a large population increase resulting from the addition of the residents of the institutions and new employment associated with the facilities. The opposite is also true. The Department of Corrections closed two facilities in 1984 and 1985, both located in Powhatan County. Although the county had been showing some population gain, the closings had a stabilizing effect on the county's population size.

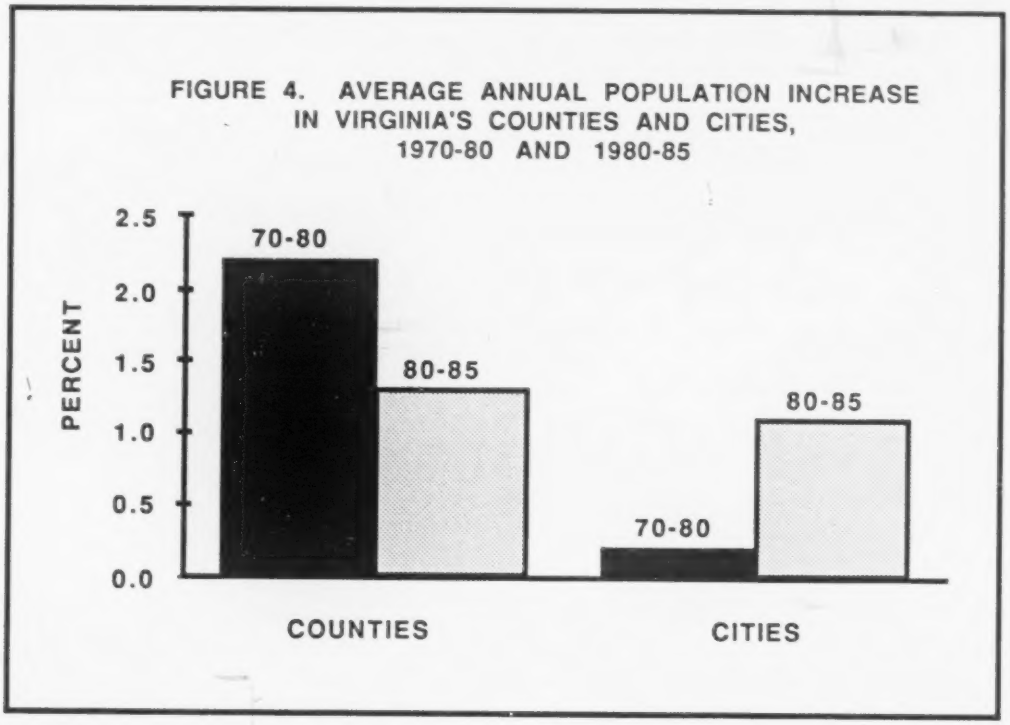
In summary, the reasons for population gains and losses are varied. Economic and social factors may combine to produce long-term trends like suburbanization that change the face of an entire nation, or change may be idiosyncratic, taking place suddenly and for reasons not likely to be repeated. Cultural factors may make populations slow to respond to local economic change, producing high unemployment rates when people prefer to remain in familiar surroundings despite the decline of local

industry. Or change may be rapid as others flock to take advantage of new opportunities. All of these mechanisms—and others—have played a part in producing today's pattern of population distribution in Virginia and will continue to do so in the future.

COUNTIES AND CITIES

During the 1970s, Virginia's counties grew much more rapidly than its independent cities. In fact, as Figure 4 shows, last decade's annual growth rate for counties averaged 2.2 percent, compared with only 0.2 percent for cities. Provisional 1985 population estimates indicate, however, that in the 1980s cities and counties are growing at nearly the same rate.

FIGURE 4. AVERAGE ANNUAL POPULATION INCREASE IN VIRGINIA'S COUNTIES AND CITIES, 1970-80 AND 1980-85



The relative importance of natural increase and net migration has also changed. During the 1970s, cities experienced positive natural increase, but much of this gain was offset by net outmigration of about 10,200 persons per year. As a result, the slight growth that cities experienced between 1970 and 1980 was due entirely to natural increase, while counties had both positive natural increase and net migration.

During the 1980s, however, counties are growing more slowly, and cities are no longer losing population through outmigration. Between 1980 and 1985, annual net inmigration for cities has been 8,200 persons, compensating almost entirely for the losses which occurred during the 1970s. The reasons for this "urban upturn," a development which is taking place nationally, are not entirely clear. Of the two explanatory factors often mentioned, one is economic, one demographic. The economic explanation cites the post-1982 tendency for business and industrial expansion to take place in metropolitan areas rather than in the form of the small plant openings common

in nonmetropolitan areas during the 1970s. The jobs thus created tend to attract migrants to metropolitan areas. The demographic explanation cites changes in household size and composition. Because couples without children, single parents, unmarried, and the elderly tend to value proximity to urban services and amenities, current trends toward increasing rates of childlessness and marital dissolution, the tendency to marry at later ages or not at all, and growing numbers of older people all encourage urban inmigration. These two factors—the economic and demographic—are far from mutually exclusive, and it is likely that in most localities both are operating.

However, analyzing population trends along city-county lines can mask important differences within each category. Virginia's cities range in size from Emporia and Norton's 4,700 to Virginia Beach's 319,400, its counties from Highland's 3,000 to Fairfax's 687,800. Like Richmond, a locality may have a very large minority population, or like Clifton Forge, almost none. Nor are cities necessarily more urban than counties. In fact, some counties, such as Arlington County in Northern Virginia, are more highly urbanized than some cities, and some cities, such as Suffolk and Virginia Beach in southeastern Virginia, are less urban than some counties.

As a result, analyzing population change from the standpoint of the city-county dichotomy can mask other important kinds of differences, particularly those between metropolitan and nonmetropolitan areas.

METROPOLITAN AND NONMETROPOLITAN AREAS

Metropolitan Statistical Areas, or MSAs, are groups of economically and socially integrated counties and cities designated by the Office of Management and Budget. Six MSAs—including Charlottesville, Danville, Lynchburg, Norfolk-Virginia Beach-Newport News, Richmond-Petersburg, and Roanoke—lie wholly within Virginia's borders, as do portions of two others—Washington, DC-MD-VA and Johnson City-Kingsport-Bristol. A list of the counties and cities included in these MSAs is provided in Appendix A.

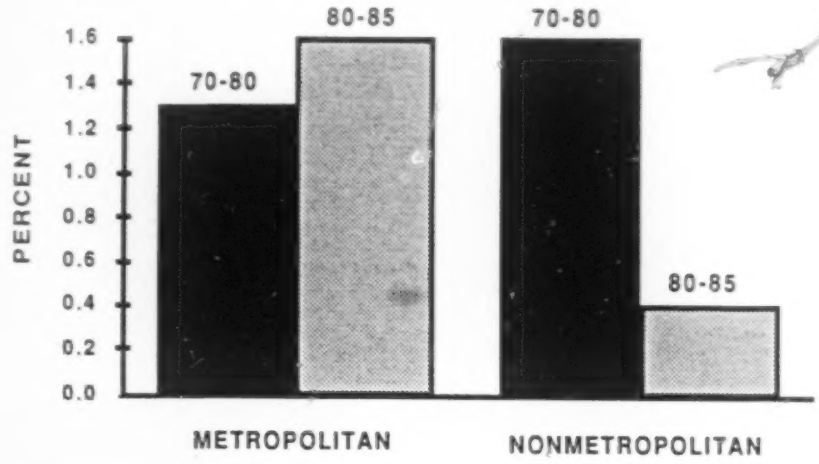
One of the most striking population trends to emerge during the first half of the 1980s is the difference in growth patterns between metropolitan and nonmetropolitan areas. Figure 5 shows how different these patterns are from those of the previous decade. During the 1970s, nonmetropolitan localities grew at a slightly faster rate than metropolitan localities. Since 1980, however, it is metropolitan localities that have grown faster; in fact, they are growing four times faster.

Contributing to this turnaround is the decline in net inmigration to nonmetropolitan localities. During the 1970s, nonmetropolitan counties and cities had an average annual net inmigration of 17,400 persons, accounting for over 70 percent of the growth in these localities. But since 1980, this figure has fallen to only 1,200 persons per year, a decline of 93 percent. According to the most recent estimates, natural increase is now the dominant growth mechanism in nonmetropolitan localities, accounting for over 80 percent of the total population gain.

Moreover, metropolitan growth is not uniform but is concentrated in or adjacent to only four of the eight Metropolitan Statistical Areas. These four include the Charlottesville, Richmond-Petersburg, and Norfolk-Virginia Beach-Newport News MSAs, along with the Virginia portion of the Washington DC-MD-VA MSA. The Northern Virginia and Norfolk MSAs are the fastest growing, each with a growth rate of over 11 percent since 1980. The Charlottesville and Richmond-Petersburg MSAs are the next fastest growing metropolitan areas with increases of 5.8 percent and 5.2 percent,

respectively. The remaining four MSAs—Danville, Lynchburg, Roanoke, and the Virginia portion of Johnson City-Kingsport-Bristol—are experiencing either slow growth or small population declines.

FIGURE 5. AVERAGE ANNUAL POPULATION INCREASE IN VIRGINIA'S METROPOLITAN AND NONMETROPOLITAN AREAS, 1970-80 AND 1980-85



Both metropolitan counties and cities have distinctly different growth patterns from their nonmetropolitan counterparts, and these growth patterns have changed over the years. Figure 6 shows these trends. During the 1970s, both metropolitan and nonmetropolitan counties had sizable average annual increases, growing by 2.5 percent and 1.8 percent, respectively. But the 1980-85 estimates show that while growth is continuing at a fairly rapid rate in metropolitan counties, growth in nonmetropolitan counties has dropped significantly. In fact, population in metropolitan counties is now increasing at six times the rate of nonmetropolitan counties.

Figure 7 provides similar statistics for metropolitan and nonmetropolitan cities. The data show that both are contributing to the urban turnaround of the 1980s. Between 1970 and 1980, neither metropolitan nor nonmetropolitan cities were growing very rapidly. Between 1980 and 1985, however, the average annual growth rate for metropolitan cities has increased six-fold over the 1970-80 average, while the rate for nonmetropolitan cities is ten times higher than in the previous decade.

REGIONS OF THE STATE

These differential rates produce the highly concentrated growth pattern shown in Figure 3. Since 1980, growth in Virginia has occurred mainly in the eastern third of the State, in an area extending from northern Virginia through parts of central Virginia to the Hampton Roads area. All of the localities experiencing large percentage gains in population—rates of ten percent or more—between 1980 and 1985, are located in this area. Moreover, although these 18 high-growth localities accounted for nearly 73

percent of the total population increase in the State, they contain only 12 percent of its total land area.

FIGURE 6. AVERAGE ANNUAL POPULATION INCREASE IN VIRGINIA'S METROPOLITAN NONMETROPOLITAN COUNTIES, 1970-80 AND 1980-85

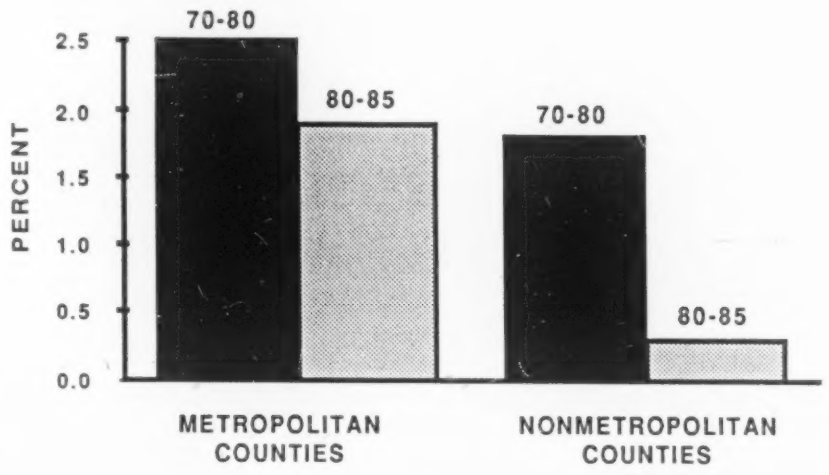
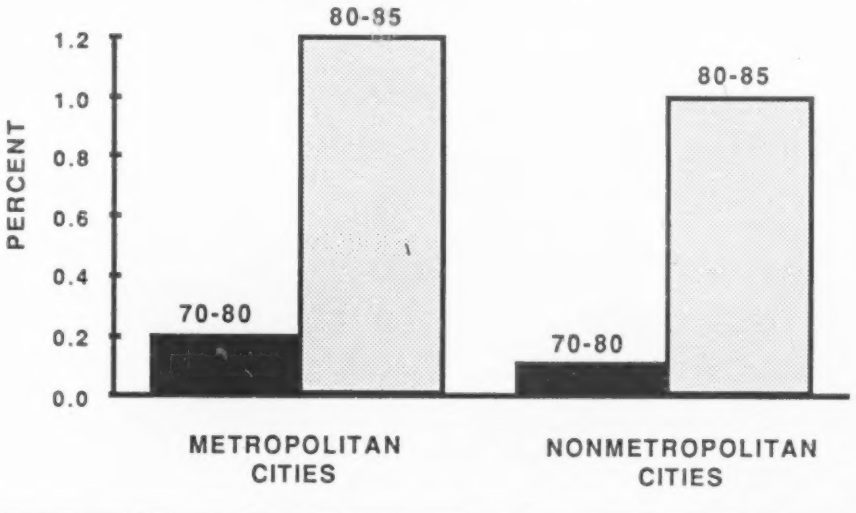


FIGURE 7. AVERAGE ANNUAL POPULATION INCREASE IN VIRGINIA'S METROPOLITAN AND NONMETROPOLITAN CITIES, 1970-80 AND 1980-85



The majority of Virginia's localities grew much more slowly. Some of the counties and cities with small population gains of less than five percent between 1980 and 1985 are located in metropolitan areas and tend to be highly urbanized and densely settled jurisdictions. Others are between or on the outskirts of the moderate-to-high growth localities. Most, however, are in an area stretching from the northern Shenandoah Valley to Lee County in the far southwestern corner of the State and extending eastward into portions of Central and Southside Virginia. For the most part, these localities are predominantly rural with low overall population densities and little or no high-density residential development.

In contrast, areas that lost population include both cities and counties. Four central cities—Richmond, Petersburg, Danville, and Bristol—failed to participate in the overall trend of metropolitan growth, as did two non-central cities—Fairfax City and Salem. Meanwhile, counties in which population is declining tend to be concentrated in three areas: along the western and southern borders of the State, in Southside, and along the Eastern Shore. These are generally rural localities which have had little new residential development and are not attracting significant amounts of new business and industry. In many cases, their unemployment rates are among the highest in the State.

IMPLICATIONS OF POPULATION CHANGE

The pattern of population growth indicated by the most recent population estimates has important implications for Virginia as a whole as well as for individual localities. The pattern of 1980-85 growth evident in Figure 3 shows a State virtually divided into two parts, one of which is experiencing considerable population growth while the other grows slowly or not at all. While both growth and stability have advantages and disadvantages, a pattern as extreme as this usually means that the two areas have widely differing needs and attitudes that can be difficult to reconcile, particularly in a time of limited resources.

On the local level, population growth benefits business, creates jobs, and enhances the local tax base. However, growth also has its costs. Localities undergoing rapid development are also likely to be faced with a number of challenges—needing to improve roads, institute zoning ordinances, build new schools, and in general expand the level and range of services offered to residents as well as to business and industry. Particularly if growth has occurred in a relatively concentrated area, strain on natural resources—the water supply, for example—may accompany the need for a variety of capital and other improvements.

Population decline is also accompanied by challenges. Often it begins with a shortage of jobs, and the people who leave are frequently the young and the better-educated, who migrate in search of better opportunities elsewhere. Left behind is the population that requires the most in the way of social services—the elderly, the poor, the under-educated, and the chronically unemployed. Yet as business follows the population elsewhere, the tax base declines, and population-based allocation formulas reduce sources of outside funding. As a result, meeting the needs of these populations can indeed be a challenge.

Finally, many of Virginia's independent cities suffer the consequences of being, in effect, "landlocked"—surrounded by county territory and lacking physical space for expansion. For these localities, the only way to acquire such space is to annex portions of adjacent county land. Yet in many counties, it is

precisely the land adjacent to city borders on which much of the county's business and industry is located. Thus the city's need for land conflicts with the county's need for tax revenue, and the annexation process becomes lengthy, conflict-ridden, and expensive for both localities.

In summary, the challenge for Virginia and each of its localities is to develop strategies for dealing with the consequences of population dynamics. Economic development initiatives, local zoning ordinances, alterations in the tax structure, and city-county revenue-sharing agreements are only some of the techniques that have been successful in adjusting to an ever-changing population environment.

ABOUT THE TABLES

The population estimates contained in this publication were developed in cooperation with the United States Bureau of the Census under the auspices of the Federal-State Cooperative Program for Population Estimates. The publication contains three tables. Table 1 gives the 1980 Census counts, final estimates for 1981 through 1984, and provisional estimates for 1985. Figures are presented for each county and independent city, Metropolitan Statistical Area, and planning district, along with totals for counties, cities, metropolitan and nonmetropolitan areas, and the state as a whole. Table 2 contains numeric and percent change and net migration for the same areas.

Table 3 contains rankings based on the figures in Tables 1 and 2. In Table 3, each county and independent city is ranked on the basis of estimated 1985 population, 1980 census counts, 1980-85 percent change, and 1980-85 new migration rate. Also, each locality is ranked twice. The first ranking compares counties with other counties, and cities with other cities. The second compares each locality with all others, regardless of type. For example, the first line in Table 3 indicates that the 1985 population estimate for Accomack ranked 30th out of 95 counties and 44th out of the 136 total localities (columns 1 and 2). These ranks have not changed since the 1980 Census (columns 3 and 4). However, Accomack's ranks on percent change and net migration are both lower than its rankings on size. In percent change it ranks 77th among all counties and 105th among all jurisdictions (columns 5 and 6), while its 1980-85 net migration rate ranks it 55th among counties and 77th among all localities.

Several points should be kept in mind when using the estimates:

1. Except for the Census population, all figures are rounded to the nearest hundred. However, the underlying calculations, for example, the sums for MSAs and planning districts, were based on unrounded numbers. As a result, the sum of the rounded estimates for constituent areas will often not be exactly the same as the rounded sum for the combined areas.

2. The MSA sums for all years reflect the jurisdictions that were assigned to the areas as of June, 1983, when the Office of Management and Budget made several changes to these assignments.

3. Estimates for the Johnson City-Kingsport-Bristol and Washington DC-MD-VA MSAs pertain only to the Virginia portions of those areas.

4. Census counts are adjusted for all post-census annexations and boundary changes. The number by which each count was adjusted, as well as other information about the changes, is included in "Boundary Changes and Annexations."

5. All users should be aware that the numbers presented in this publication are estimates produced by statistical methods that are described in Appendix B. According to 1980 tests, the average absolute error of the estimates in Virginia was between four and five percent. While we believe that the estimates are as accurate as we can make them, it should be kept in mind that each of the numbers is implicitly surrounded by an error range.

Since the 1980 Census was taken, there have been seven annexations or boundary changes in Virginia. The Census counts shown in the tables reflect

adjustments made for these annexations. All annexations and boundary adjustments are effective as of December 31 of the given year. Through 1983, the shift in population from one locality to another was reflected in the estimate for the year in which the annexation was effective and the preceding year. Annexation adjustments were handled in this way primarily for technical reasons. Beginning with the final 1984 estimates, the population estimates are no longer back-adjusted. For example, there were two annexations which were effective on December 31, 1985; one involving Rockbridge County and the city of Waynesboro and the other involving Southampton County and Franklin City. Because these annexations had not taken effect as of July 1985, the exchange in population brought about by the annexations will first be reflected in the population estimates for July 1986.

BOUNDARY CHANGES AND ANNEXATIONS, 1980-1985

The list below details all boundary changes and annexations between counties and independent cities that have occurred since the 1980 Census. Six items are listed for each such change: (1) the localities involved; (2) the legally effective date of the change; (3) the estimated population involved on that date; (4) the estimated population in the transferred area on the Census date, April 1, 1980; (5) the Census population; and (6) the adjusted Census population based on the estimated population in the transferred area on the Census date. The first three items are obtained from the Decree of Annexation; the fourth and fifth are provided by the Bureau of the Census, while the sixth is derived by the Tayloe Murphy Institute based on the provided data.

In Tables 1 and 2, and in the rankings presented in Table 3, all Census counts are adjusted for any annexations or other boundary changes that have taken place since the Census date. However, through 1983, the estimates were adjusted beginning with the year before the change became legal. For example, the Fredericksburg-Spotsylvania annexation was effective December 31, 1983. Consequently, the change is reflected in the 1982 and 1983 estimates for these localities, but not in the 1981 estimate.

Beginning with the final 1984 estimates contained in this publication, annexations will first be reflected in the estimates that are issued for the year following the effective date. For example, annexations which were effective December 31, 1985, will be reflected in the 1986 provisional estimates planned for release in early 1986. However, since we do not revise final estimates once they have been published, except in the case of a data error, all annexations and boundary changes effective prior to December 31, 1984, will still reflect the back adjustments.

1. From Fairfax County to Fairfax City

Effective date: December 31, 1980	
Estimated population transferred:	1,093
Estimated equivalent Census population:	1,147
Census population:	
Fairfax County:	596,901
Fairfax City:	19,390
Adjusted Census Population:	
Fairfax County:	595,754
Fairfax City:	20,537

2. From Montgomery County to Radford City

Effective date: December 31, 1980	
Estimated population transferred:	272
Estimated equivalent Census population:	231
Census population:	
Montgomery County:	63,516
Radford City:	13,225
Adjusted Census population:	
Montgomery County:	63,285
Radford City:	13,456

3. From Rockingham County to Harrisonburg City

Effective date: December 31, 1982	
Estimated population transferred:	4,702
Estimated equivalent Census population:	4,984
Census population:	
Rockingham County:	57,038
Harrisonburg City:	19,671
Adjusted Census population:	
Rockingham County:	52,054
Harrisonburg City:	24,655

4. From Spotsylvania County to Fredericksburg City

Effective date: December 31, 1983	
Estimated population transferred:	2,425
Estimated equivalent Census population:	2,440
Census population:	
Spotsylvania County:	34,435
Fredericksburg City:	15,322
Adjusted Census population:	
Spotsylvania County:	31,995
Fredericksburg City:	17,762

5. From James City County to Williamsburg City

Effective date: December 31, 1983	
Estimated population transferred:	428
Estimated equivalent Census population:	424
Census population:	
James City County:	22,763
Williamsburg City:	9,870
Adjusted Census population:	
James City County:	22,339
Williamsburg City:	10,294

6. From Rockbridge County to Buena Vista City

Effective date: December 31, 1983	
Estimated population transferred:	214
Estimated equivalent Census population:	187
Census population:	
Rockbridge County:	17,911
Buena Vista City:	6,717
Adjusted Census population:	
Rockbridge County:	17,724
Buena Vista City:	6,904

7. From Prince William County to Manassas City

Effective date: December 31, 1983	
Estimated population transferred:	163
Estimated equivalent Census population:	67
Census population:	

Prince William County:	144,703
Manassas City:	15,438
Adjusted Census population:	
Prince William County:	144,636
Manassas City:	15,505

TABLE 1. POPULATION ESTIMATES FOR VIRGINIA LOCALITIES, 1981-1985

Locality	1985 (Provisional)	1984	1983	1982	1981	1980 Census
COUNTIES						
Accomack	31,200	31,100	31,000	31,100	31,000	31,268
Albemarle	60,200	59,300	58,000	57,500	56,500	55,783
Alleghany	13,900	13,700	13,700	13,800	14,200	14,333
Amelia	8,400	8,300	8,200	8,200	8,300	8,405
Amherst	28,900	29,000	28,900	29,100	29,100	29,122
Appomattox	12,300	12,300	12,200	12,100	12,000	11,971
Arlington	157,600	157,000	154,000	153,200	152,900	152,599
Augusta	54,200	54,400	54,000	53,900	54,100	53,732
Bath	5,300	5,400	5,500	5,200	5,400	5,860
Bedford	38,300	37,400	36,600	36,200	35,700	34,927
Bland	6,400	6,400	6,500	6,500	6,500	6,349
Botetourt	24,400	23,900	23,700	23,500	23,600	23,270
Brunswick	16,000	16,100	16,200	15,700	15,500	15,632
Buchanan	36,500	37,300	38,100	38,200	38,000	37,989
Buckingham	12,200	12,300	11,900	11,500	11,800	11,751
Campbell	46,900	46,300	45,900	45,900	45,700	45,424
Caroline	18,800	18,900	18,400	18,300	17,900	17,904
Carroll	27,600	28,000	28,300	28,000	27,400	27,270
Charles City	6,600	6,700	6,600	6,700	6,700	6,692
Charlotte	11,700	11,900	11,900	12,000	12,100	12,266
Chesterfield	165,900	159,200	154,900	152,400	148,700	141,372
Clarke	10,000	10,100	10,000	10,100	9,900	9,965
Craig	4,200	4,100	3,900	3,900	3,900	3,948
Culpeper	23,700	23,300	22,900	22,800	22,800	22,620
Cumberland	7,900	8,000	7,800	7,800	7,900	7,881
Dickenson	20,000	20,100	20,300	20,200	19,900	19,806
Dinwiddie	21,000	21,100	21,500	22,000	22,400	22,602
Essex	8,900	8,900	8,700	8,700	8,800	8,864
Fairfax	687,800	673,900	651,700	639,200	618,600	595,754
Fauquier	40,100	38,900	38,300	37,500	36,600	35,889
Floyd	11,800	11,700	11,600	11,700	11,800	11,563
Fluvanna	10,500	10,500	10,400	10,300	10,300	10,244
Franklin	37,300	36,900	36,500	36,000	35,900	35,740
Frederick	36,000	35,400	35,200	35,100	34,400	34,150
Giles	17,600	17,700	17,700	17,700	17,800	17,810

Table 1, continued

Locality	1985 (Provisional)	1984	1983	1982	1981	1980 Census
Gloucester	26,300	24,500	23,200	22,100	21,000	20,107
Goochland	12,500	12,500	12,200	12,100	11,900	11,761
Grayson	16,500	16,500	16,700	16,700	16,700	16,579
Greene	8,500	8,300	8,100	8,000	7,800	7,625
Greensville	10,500	10,600	10,800	10,800	11,000	10,903
Halifax	30,200	29,900	29,900	30,000	30,300	30,599
Hanover	52,800	52,200	51,400	51,200	51,100	50,398
Henrico	193,900	191,600	188,900	186,000	184,000	180,735
Henry	56,100	56,400	56,100	56,500	57,100	57,654
Highland	3,000	3,000	2,800	2,700	2,700	2,937
Isle of Wight	23,400	23,000	22,500	22,000	22,000	21,603
James City	26,100	25,100	24,500	23,800	23,700	22,339
King and Queen	6,300	6,100	5,900	5,900	5,900	5,968
King George	11,700	11,100	10,800	10,700	10,600	10,543
King William	10,100	9,800	9,800	9,600	9,500	9,334
Lancaster	11,100	10,700	10,400	10,300	10,200	10,129
Lee	26,800	26,600	26,700	26,400	26,200	25,956
Loudoun	63,600	62,300	60,400	59,200	58,400	57,427
Louisa	19,000	18,800	18,400	18,200	18,000	17,825
Lunenburg	12,100	12,200	12,100	12,200	12,200	12,124
Madison	10,600	10,600	10,300	10,200	10,200	10,232
Mathews	8,700	8,500	8,400	8,300	8,100	7,995
Mecklenburg	29,700	29,700	29,300	29,100	29,100	29,444
Middlesex	8,500	8,200	8,000	7,900	7,800	7,719
Montgomery	65,500	64,800	64,800	64,700	64,200	63,285
Nelson	12,400	12,400	12,200	12,300	12,300	12,204
New Kent	10,100	9,800	9,400	9,200	9,000	8,781
Northampton	14,300	14,300	14,400	14,400	14,500	14,625
Northumberland	10,000	9,900	9,800	9,900	9,900	9,828
Nottoway	14,500	14,300	14,300	14,400	14,500	14,666
Orange	19,200	18,900	18,600	18,600	18,200	18,063
Page	19,900	19,700	19,400	19,400	19,300	19,401
Patrick	17,700	17,700	17,500	17,600	17,500	17,647
Pittsylvania	66,400	66,300	66,400	66,300	66,400	66,147
Powhatan	13,400	13,400	13,400	13,100	13,100	13,062

Table 1. continued

Locality	1985 (Provisional)	1984	1983	1982	1981	1980 Census
Prince Edward	17,200	16,900	16,500	16,700	16,800	16,456
Prince George	26,800	26,100	25,900	25,700	26,700	25,733
Prince William	169,000	164,100	159,200	156,700	152,300	144,636
Pulaski	34,500	34,900	35,000	35,300	35,300	35,229
Rappahannock	6,100	6,100	6,000	5,900	6,000	6,093
Richmond	7,000	7,000	6,900	7,000	6,900	6,952
Roanoke	73,700	73,400	73,500	73,800	73,900	72,945
Rockbridge	17,800	17,900	17,900	17,800	18,000	17,724
Rockingham	53,600	53,100	52,900	52,800	52,900	52,054
Russell	32,300	32,500	32,700	32,400	32,000	31,761
Scott	25,600	25,500	25,600	25,400	25,000	25,068
Shenandoah	27,800	27,900	27,800	27,700	27,700	27,559
Smyth	33,200	33,300	33,400	33,300	33,400	33,366
Southampton	18,300	18,600	19,000	18,600	18,600	18,731
Spotsylvania	37,500	35,700	34,200	33,700	35,700	31,995
Stafford	48,300	47,100	45,400	44,100	42,100	40,470
Surry	6,200	6,300	6,100	6,100	6,100	6,046
Sussex	10,200	10,400	10,300	10,500	10,700	10,874
Tazewell	50,900	51,100	52,100	51,700	51,000	50,511
Warren	22,600	22,300	21,700	21,600	21,500	21,200
Washington	47,000	46,900	47,100	47,000	46,900	46,487
Westmoreland	14,100	14,200	14,000	14,000	14,100	14,041
Wise	45,200	45,000	45,000	44,500	44,000	43,863
Wythe	25,500	25,500	25,600	25,600	25,600	25,522
York	39,900	38,900	37,900	36,800	36,400	35,463
CITIES						
Alexandria	107,500	107,600	105,300	104,500	105,200	103,217
Bedford	6,200	6,200	6,100	6,200	6,200	5,991
Bristol	18,000	18,200	18,700	18,800	18,700	19,042
Buena Vista	6,600	6,600	6,700	6,700	6,600	6,904
Charlottesville	40,900	40,700	40,600	40,400	40,300	39,916
Chesapeake	130,300	125,800	122,100	119,800	116,900	114,486
Clifton Forge	5,000	4,900	4,900	4,800	4,900	5,046
Colonial Heights	16,800	17,100	17,100	17,100	16,800	16,509
Covington	7,800	7,900	8,100	8,400	8,700	9,063
Danville	44,900	44,800	44,600	44,800	45,400	45,642

Table 1, continued

Locality	1985 (Provisional)	1984	1983	1982	1981	1980 Census
Emporia	4,700	4,800	4,800	4,900	4,900	4,840
Fairfax	20,300	20,500	20,600	20,400	20,700	20,537
Falls Church	9,500	9,500	9,500	9,400	9,500	9,515
Franklin	7,000	7,100	7,100	7,000	7,100	7,308
Fredericksburg	19,100	18,800	18,400	18,100	15,500	17,762
Galax	6,900	6,700	6,400	6,500	6,600	6,524
Hampton	125,300	125,900	126,100	125,000	123,700	122,617
Harrisonburg	26,500	26,000	25,400	25,500	25,200	24,655
Hopewell	24,000	24,000	24,100	24,100	23,800	23,397
Lexington	6,900	6,900	7,000	7,100	7,100	7,292
Lynchburg	68,000	67,300	67,300	67,400	67,200	66,743
Manassas	19,500	18,300	17,300	17,200	16,600	15,505
Manassas Park	6,900	6,700	6,300	6,400	6,500	6,524
Martinsville	18,700	18,400	18,300	18,200	18,200	18,149
Newport News	157,100	154,800	153,400	150,900	147,800	144,903
Norfolk	282,900	282,300	279,100	267,200	273,000	266,979
Norton	4,700	4,500	4,700	4,600	4,600	4,757
Petersburg	39,700	40,300	40,500	40,200	40,400	41,055
Poquoson	9,900	9,700	9,600	9,500	9,100	8,726
Portsmouth	111,000	109,300	106,800	105,900	104,400	104,577
Radford	13,500	13,400	13,300	13,100	13,500	13,456
Richmond	217,200	218,200	220,300	218,600	218,100	219,214
Roanoke	101,200	100,600	100,500	100,400	100,200	100,220
Salem	23,900	24,100	24,000	24,000	23,900	23,958
South Boston	7,200	7,200	7,100	7,100	7,100	7,093
Staunton	21,700	21,700	22,200	22,100	21,900	21,857
Suffolk	50,500	49,000	48,100	47,500	47,200	47,621
Virginia Beach	319,400	307,800	296,200	283,000	273,600	262,199
Waynesboro	15,100	15,100	15,100	15,100	15,200	15,329
Williamsburg	10,700	10,800	10,700	10,500	10,100	10,294
Winchester	20,700	20,600	20,500	20,200	20,300	20,217

Table 1, continued

Locality	1985 (Provisional)	1984	1983	1982	1981	1980 Census
PLANNING DISTRICTS						
1 LENOWISCO	102,300	101,700	102,000	101,000	99,800	99,644
2 Cumberland Plateau	139,800	141,000	143,300	142,400	140,900	140,067
3 Mount Rogers	181,100	181,600	182,600	182,300	181,800	181,139
4 New River Valley	142,900	142,400	142,500	142,600	142,500	141,343
5 Fifth	254,100	252,600	252,300	252,600	253,300	252,783
6 Central Shenandoah	210,700	210,000	209,400	209,000	209,200	208,344
7 Lord Fairfax	137,000	136,000	134,600	134,100	133,100	132,492
8 Northern Virginia	1,241,900	1,219,800	1,184,400	1,166,200	1,140,700	1,105,714
9 Rappahannock-Rapidan	99,700	97,700	96,000	95,000	93,800	92,897
10 Thomas Jefferson	151,500	150,000	147,800	146,800	145,200	143,597
11 Central Virginia	200,700	198,500	197,100	196,900	196,000	194,178
12 West Piedmont	241,100	240,500	239,500	239,300	240,500	240,979
13 Southside	83,200	82,800	82,600	81,900	81,900	82,768
14 Piedmont	84,200	83,900	82,900	82,900	83,500	83,549
15 Richmond Regional	672,400	663,600	657,000	649,400	642,600	632,015
16 RADCO	135,500	131,600	127,300	124,900	121,800	118,674
17 Northern Neck	42,300	41,900	41,200	41,200	41,100	40,950
18 Middle Peninsula	68,700	66,000	64,000	62,500	61,200	59,987
19 Crater	159,800	160,600	161,100	161,500	162,800	161,959
20 Southeastern Virginia	942,900	922,800	901,000	870,900	862,900	843,504
21 Peninsula	369,100	365,200	362,100	356,500	350,800	344,342
22 Accomack-Northampton	45,500	45,400	45,400	45,400	45,500	45,893
MSA'S						
Bristol (Va. Portion)	90,600	90,700	91,300	91,200	90,600	90,597
Charlottesville	120,100	118,800	117,200	116,200	115,000	113,568
Danville	111,300	111,100	111,100	111,100	111,800	111,789
Lynchburg	143,700	142,600	142,100	142,400	142,000	141,289
Norfolk	1,289,500	1,263,800	1,237,700	1,201,900	1,187,000	1,160,311
Northern Virginia	1,290,200	1,266,900	1,229,800	1,210,300	1,182,700	1,146,184
Richmond	800,700	792,100	786,100	778,500	772,700	761,311
Roanoke	223,300	221,900	221,600	221,700	221,600	220,393
Total Counties	3,552,200	3,505,400	3,451,000	3,416,700	3,377,900	3,317,179
Total Cities	2,154,000	2,130,100	2,104,900	2,068,500	2,052,700	2,029,639
Total Metropolitan	4,069,300	4,007,900	3,936,800	3,873,200	3,823,400	3,745,442
Total Nonmetropolitan	1,636,900	1,627,600	1,619,000	1,612,000	1,607,200	1,601,376
State of Virginia	5,706,300	5,635,500	5,555,900	5,485,200	5,430,600	5,346,818

TABLE 2. COMPONENTS OF CHANGE FOR VIRGINIA LOCALITIES, 1980-1984 AND 1980-1985

Locality	1980-1985 (Provisional)				1980-1984			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
COUNTIES								
Accomack	-100	-0.3	-100	-0.2	-200	-0.6	-200	-0.6
Albemarle	4,400	7.9	2,000	3.6	3,500	6.3	1,600	2.9
Alleghany	-500	-3.3	-800	-5.4	-600	-4.2	-800	-5.8
Amelia	0	-0.2	-200	-2.2	-100	-1.1	-200	-2.6
Amherst	-200	-0.8	-900	-3.0	-100	-0.5	-700	-2.3
Appomattox	400	3.0	100	1.1	300	2.7	100	1.2
Arlington	5,000	3.3	-400	-0.3	4,400	2.9	0	0.0
Augusta	500	0.9	-700	-1.3	700	1.3	-300	-0.5
Bath	-500	-9.1	-600	-10.0	-500	-7.9	-500	-8.7
Bedford	3,400	9.7	2,500	7.2	2,400	7.0	1,700	4.9
Bland	100	1.0	0	-0.7	100	1.4	0	-0.1
Botetourt	1,100	4.7	800	3.4	600	2.6	400	1.6
Brunswick	400	2.4	200	1.5	400	2.8	300	1.9
Buchanan	-1,500	-3.8	-2,900	-7.5	-700	-1.8	-1,900	-5.0
Buckingham	500	4.2	300	2.8	600	4.8	400	3.7
Campbell	1,400	3.2	-100	-0.2	900	1.9	-300	-0.7
Caroline	900	5.1	300	1.9	1,000	5.3	500	2.7
Carroll	300	1.1	300	1.0	700	2.5	600	2.2
Charles City	-100	-0.9	-400	-5.4	0	0.3	-200	-3.6
Charlotte	-500	-4.3	-600	-5.3	-400	-3.1	-500	-4.1
Chesterfield	24,500	17.3	15,700	11.1	17,800	12.6	10,800	7.6
Clarke	100	0.7	-100	-0.5	100	1.5	100	0.5
Craig	200	5.6	200	5.4	100	3.5	100	3.5
Culpeper	1,100	4.9	500	2.1	700	2.9	200	0.7
Cumberland	0	0.5	0	-0.4	100	0.9	0	0.2
Dickenson	200	1.2	-300	-1.3	200	1.2	-200	-1.0
Dinwiddie	-1,600	-7.2	-1,900	-8.5	-1,500	-6.5	-1,700	-7.6
Essex	0	-0.1	-100	-1.6	0	0.0	-100	-1.3
Fairfax	92,100	15.5	57,200	9.6	78,100	13.1	50,300	8.4
Fauquier	4,200	11.6	2,800	7.7	3,000	8.3	1,800	5.1
Floyd	200	1.8	100	0.7	200	1.4	100	0.5
Fluvanna	300	2.9	0	0.2	200	2.0	0	-0.1
Franklin	1,500	4.3	900	2.4	1,100	3.1	600	1.7
Frederick	1,800	5.3	500	1.3	1,200	3.6	100	0.3
Giles	-200	-1.3	-400	-2.2	-100	-0.7	-200	-1.4

Table 2, continued

Locality	1980-1985 (Provisional)				1980-1984			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
Gloucester	6,200	30.8	5,500	27.6	4,400	22.0	3,900	19.5
Goochland	800	6.5	500	4.2	700	5.9	500	4.0
Grayson	-100	-0.7	-100	-0.6	-100	-0.5	-100	-0.5
Greene	900	11.6	500	6.6	700	9.0	400	4.7
Greensville	-400	-3.7	-700	-6.5	-300	-2.9	-600	-5.2
Halifax	-400	-1.3	-800	-2.6	-700	-2.3	-1,100	-3.5
Hanover	2,400	4.7	1,000	2.0	1,800	3.6	700	1.4
Henrico	13,200	7.3	8,500	4.7	10,800	6.0	7,100	3.9
Henry	-1,500	-2.7	-2,900	-5.1	-1,200	-2.1	-2,400	-4.1
Highland	100	3.8	100	3.2	0	0.9	0	0.6
Isle of Wight	1,800	8.5	1,200	5.6	1,400	6.6	900	4.2
James City	3,800	17.0	2,800	12.7	2,700	12.2	2,000	8.9
King and Queen	400	6.1	300	5.0	200	2.6	100	2.1
King George	1,200	11.0	700	6.3	600	5.8	200	2.3
King William	700	7.8	500	5.1	500	5.3	300	3.0
Lancaster	1,000	10.0	1,100	10.9	600	6.1	700	7.0
Lee	800	3.2	600	2.3	600	2.4	400	1.7
Loudoun	6,100	10.7	2,900	5.0	4,900	8.5	2,200	3.9
Louisa	1,200	6.5	800	4.2	1,000	5.4	600	3.5
Lunenburg	0	-0.1	-100	-1.1	100	0.5	0	-0.4
Madison	300	3.4	100	1.3	300	3.1	100	1.4
Mathews	700	9.0	900	10.9	500	6.0	600	7.6
Mecklenburg	300	1.0	100	0.3	200	0.8	0	0.2
Middlesex	700	9.5	800	10.8	500	6.4	600	7.5
Montgomery	2,200	3.5	300	0.4	1,500	2.3	-100	-0.1
Nelson	200	1.6	100	0.7	200	1.4	100	0.6
New Kent	1,300	15.2	1,000	11.2	1,000	11.5	700	8.4
Northampton	-300	-1.9	-300	-1.9	-400	-2.5	-400	-2.6
Northumberland	200	1.9	400	3.6	100	1.1	200	2.3
Nottoway	-100	-0.9	-100	-1.0	-400	-2.5	-400	-2.7
Orange	1,100	6.3	800	4.3	800	4.4	500	2.8
Page	500	2.4	200	0.8	300	1.6	100	0.4
Patrick	0	0.1	-100	-0.7	100	0.3	-100	-0.3
Pittsylvania	200	0.4	-1,400	-2.1	200	0.3	-1,100	-1.7
Powhatan	400	2.9	0	-0.2	400	2.7	0	0.3

Table 2, continued

Locality	1980-1985 (Provisional)				1980-1984			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
Prince Edward	700	4.5	600	3.4	500	2.9	300	1.9
Prince George	1,100	4.2	-400	-1.5	300	1.3	-900	-3.5
Prince William	24,400	16.9	10,900	7.6	19,400	13.4	8,600	5.9
Pulaski	-700	-2.0	-1,200	-3.4	-300	-1.0	-800	-2.2
Rappahannock	0	0.4	0	-0.8	0	0.8	0	-0.1
Richmond	100	0.9	100	0.8	0	0.1	0	-0.0
Roanoke	800	1.1	-200	-0.3	400	0.6	-400	-0.6
Rockbridge	0	0.3	-300	-1.4	200	1.0	-100	-0.4
Rockingham	1,600	3.0	-200	-0.4	1,100	2.1	-500	-0.9
Russell	600	1.8	-200	-0.7	800	2.5	100	0.4
Scott	500	2.0	400	1.4	500	1.9	300	1.4
Shenandoah	200	0.9	100	0.4	400	1.4	300	0.9
Smyth	-100	-0.4	-500	-1.5	-100	-0.3	-400	-1.2
Southampton	-400	-2.1	-600	-3.3	-100	-0.8	-400	-1.9
Spotsylvania	5,500	17.3	3,500	11.0	3,700	11.7	2,100	6.7
Stafford	7,900	19.4	5,700	14.0	6,600	16.3	4,800	12.0
Surry	200	2.6	0	-0.5	200	3.5	100	1.0
Sussex	-700	-6.6	-900	-8.2	-500	-4.7	-700	-6.0
Tazewell	300	0.7	-900	-1.8	600	1.2	-500	-1.0
Warren	1,400	6.7	1,000	4.5	1,100	5.1	700	3.3
Washington	600	1.2	0	0.1	500	1.0	0	0.0
Westmoreland	100	0.7	0	0.1	200	1.2	100	0.9
Wise	1,400	3.1	-200	-0.3	1,100	2.6	-200	-0.4
Wythe	0	0.1	-200	-0.9	0	0.0	-200	-0.8
York	4,400	12.4	3,600	10.1	3,400	9.6	2,800	7.9
CITIES								
Alexandria	4,300	4.2	500	0.5	4,400	4.3	1,400	1.3
Bedford	200	4.2	500	8.4	200	3.9	400	7.1
Bristol	-1,100	-5.7	-1,000	-5.4	-800	-4.3	-800	-4.1
Buena Vista	-300	-4.6	-300	-4.9	-300	-4.9	-400	-5.2
Charlottesville	1,000	2.4	0	0.1	800	2.1	100	0.1
Chesapeake	15,800	13.8	9,600	8.4	11,300	9.8	6,300	5.5
Clifton Forge	0	-0.3	100	1.8	-200	-3.0	-100	-1.4
Colonial Heights	300	1.7	100	0.5	600	3.4	400	2.2
Covington	-1,300	-14.1	-1,200	-13.6	-1,200	-12.8	-1,100	-12.5
Danville	-700	-1.6	-800	-1.7	-900	-1.9	-900	-2.0

Table 2, continued

Locality	1980-1985 (Provisional)				1980-1984			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
Emporia	-100	-2.5	-100	-1.4	0	0.1	0	0.5
Fairfax	-300	-1.2	-1,300	-6.4	0	-0.1	-900	-4.3
Falls Church	0	0.2	-200	-1.7	0	-0.2	-200	-1.8
Franklin	-300	-4.0	-500	-6.9	-200	-2.8	-400	-5.1
Fredericksburg	1,400	7.8	1,100	6.3	1,100	6.1	900	5.2
Galax	300	5.1	400	5.7	200	3.4	300	4.1
Hampton	2,700	2.2	-4,100	-3.4	3,300	2.7	-2,300	-1.8
Harrisonburg	1,800	7.3	1,600	6.4	1,300	5.4	1,200	4.7
Hopewell	600	2.6	-300	-1.4	600	2.5	-200	-0.8
Lexington	-400	-5.7	-300	-4.0	-400	-5.7	-300	-4.4
Lynchburg	1,200	1.9	600	0.9	500	0.8	0	0.0
Manassas	4,000	25.9	2,500	16.2	2,800	18.1	1,600	10.3
Manassas Park	400	6.4	-100	-1.9	100	2.1	-300	-4.7
Martinsville	600	3.3	300	1.8	300	1.6	100	0.6
Newport News	12,200	8.4	2,800	1.9	9,900	6.9	2,300	1.6
Norfolk	16,000	6.0	100	0.0	15,300	5.7	2,600	1.0
Norton	0	-0.6	-100	-2.8	-200	-4.4	-300	-6.1
Petersburg	-1,400	-3.4	-2,500	-6.1	-700	-1.8	-1,600	-4.0
Poquoson	1,200	13.9	1,000	11.2	1,000	11.4	800	8.9
Portsmouth	6,400	6.1	1,800	1.7	4,700	4.5	900	0.8
Radford	100	0.5	0	-0.2	-100	-0.6	-100	-1.1
Richmond	-2,000	-0.9	-6,000	-2.8	-1,000	-0.4	-4,300	-1.9
Roanoke	1,000	1.0	0	-0.0	400	0.4	-400	-0.4
Salem	0	-0.2	-100	-0.6	100	0.4	0	-0.1
South Boston	100	1.8	100	1.5	100	1.0	0	0.7
Staunton	-200	-0.9	-200	-1.0	-100	-0.6	-200	-0.8
Suffolk	2,800	5.9	1,600	3.4	1,400	2.9	400	0.9
Virginia Beach	57,200	21.8	37,600	14.3	45,600	17.4	30,200	11.5
Waynesboro	-200	-1.5	-700	-4.5	-200	-1.6	-600	-3.9
Williamsburg	500	4.4	200	1.6	500	5.2	300	2.6
Winchester	500	2.6	500	2.3	300	1.7	300	1.4

Table 2, continued

Locality	1980-1985 (Provisional)				1980-1984			
	Total Change		Net Migration		Total Change		Net Migration	
	Numeric	Percent	Numeric	Percent	Numeric	Percent	Numeric	Percent
PLANNING DISTRICTS								
1 LENOWISCO	2,700	2.7	700	0.7	2,000	2.0	300	0.3
2 Cumberland Plateau	-300	-0.2	-4,200	-3.0	900	0.7	-2,500	-1.8
3 Mount Rogers	0	-0.0	-1,200	-0.7	500	0.3	-600	-0.3
4 New River Valley	1,500	1.1	-1,300	-0.9	1,100	0.8	-1,200	-0.8
5 Fifth	1,300	0.5	-1,300	-0.5	-200	-0.1	-2,300	-0.9
6 Central Shenandoah	2,300	1.1	-1,600	-0.8	1,700	0.8	-1,600	-0.8
7 Lord Fairfax	4,500	3.4	2,100	1.6	3,500	2.7	1,500	1.1
8 Northern Virginia	136,100	12.3	72,000	6.5	114,100	10.3	62,800	5.7
9 Rappahannock-Rapidan	6,800	7.3	4,100	4.4	4,800	5.1	2,600	2.8
10 Thomas Jefferson	7,900	5.5	3,400	2.4	6,400	4.4	2,700	1.9
11 Central Virginia	6,500	3.3	2,800	1.4	4,300	2.2	1,300	0.7
12 West Piedmont	100	0.0	-4,000	-1.7	-400	-0.2	-3,800	-1.6
13 Southside	400	0.5	-400	-0.5	0	0.0	-700	-0.8
14 Piedmont	600	0.7	-300	-0.3	300	0.4	-400	-0.5
15 Richmond Regional	40,400	6.4	20,200	3.2	31,600	5.0	15,300	2.4
16 RADCO	16,800	14.2	11,300	9.5	13,000	10.9	8,700	7.3
17 Northern Neck	1,400	3.3	1,500	3.7	900	2.2	1,100	2.6
18 Middle Peninsula	8,700	14.6	7,900	13.1	6,100	10.1	5,400	9.0
19 Crater	-2,100	-1.3	-6,800	-4.2	-1,400	-0.8	-5,200	-3.2
20 Southeastern Virginia	99,400	11.8	50,800	6.0	79,300	9.4	40,500	4.8
21 Peninsula	24,700	7.2	6,200	1.8	20,900	6.1	5,800	1.7
22 Accomack-Northampton	-400	-0.8	-300	-0.7	-500	-1.2	-600	-1.2
MSA'S								
Bristol (Va. Portion)	0	-0.0	-600	-0.7	100	0.1	-400	-0.5
Charlottesville	6,500	5.8	2,600	2.3	5,200	4.6	2,000	1.8
Danville	-500	-0.4	-2,200	-2.0	-700	-0.6	-2,100	-1.9
Lynchburg	2,500	1.7	-400	-0.3	1,300	0.9	-1,000	-0.7
Norfolk	129,200	11.1	62,400	5.4	103,500	8.9	50,100	4.3
Northern Virginia	144,000	12.6	77,600	6.8	120,700	10.5	67,700	5.9
Richmond	39,300	5.2	15,100	2.0	30,800	4.0	11,300	1.5
Roanoke	2,900	1.3	400	0.2	1,600	0.7	-500	-0.2
Total Counties	235,100	7.1	118,800	3.6	188,300	5.7	94,200	2.8
Total Cities	124,400	6.1	42,800	2.1	100,400	4.9	35,100	1.7
Total Metropolitan	323,900	8.6	155,000	4.1	262,500	7.0	127,200	3.4
Total Nonmetropolitan	35,600	2.2	6,500	0.4	26,200	1.6	2,100	0.1
State of Virginia	359,400	6.7	161,600	3.0	288,700	5.4	129,200	2.4

TABLE 3. RANKINGS BY ESTIMATES, CENSUS COUNTS, CHANGE, AND NET MIGRATION RATES

Locality	Provisional Estimate 1985		Census 1980		Percent Change 1980-85		Net Migration Rate 1980-85	
	City/County	Overall	City/County	Overall	City/County	Overall	City/County	Overall
COUNTIES								
Accomack	30	44	30	44	77	105	55	77
Albemarle	10	20	11	21	19	24	27	35
Alleghany	62	88	61	87	89	124	89	126
Amelia	85	115	82	113	76	103	81	111
Amherst	33	47	33	47	80	109	84	116
Appomattox	66	93	67	94	44	60	42	58
Arlington	5	8	3	6	40	55	58	81
Augusta	12	22	12	22	63	87	72	97
Bath	93	131	93	131	95	135	95	135
Bedford	22	36	25	39	15	19	14	19
Bland	89	126	89	126	60	83	65	89
Botetourt	42	57	40	57	31	43	29	37
Brunswick	58	83	58	82	49	68	38	54
Buchanan	25	39	20	34	91	127	92	132
Buckingham	67	94	69	96	35	48	32	41
Campbell	18	29	17	29	42	58	54	76
Caroline	51	73	51	73	29	41	37	48
Carroll	35	49	35	49	58	81	43	59
Charles City	88	124	88	123	82	112	90	127
Charlotte	70	97	64	91	92	129	88	124
Chesterfield	4	7	5	9	3	5	5	8
Clarke	79	107	77	105	65	89	63	86
Craig	94	135	94	135	27	38	18	26
Culpeper	43	60	41	58	30	42	35	45
Cumberland	86	116	84	115	68	93	60	83
Dickenson	47	67	47	67	56	79	73	98
Dinwiddie	46	64	42	59	94	134	94	134
Essex	81	111	80	110	75	101	77	104
Fairfax	1	1	1	1	7	9	11	14
Fauquier	20	33	21	35	10	14	12	17
Floyd	69	96	70	97	53	75	46	63
Fluvanna	74	102	74	102	46	62	51	70
Franklin	24	38	22	36	34	47	33	42
Frederick	26	40	26	40	28	39	41	57
Giles	55	79	53	75	84	116	82	112

Table 3, continued

Locality	Provisional Estimate 1985		Census 1980		Percent Change 1980-85		Net Migration Rate 1980-85	
	City/County	Overall	City/County	Overall	City/County	Overall	City/County	Overall
Gloucester	38	53	46	66	1	1	1	1
Goochland	64	91	68	95	24	31	26	34
Grayson	57	82	56	79	79	108	64	88
Greene	83	113	86	117	11	15	15	20
Greensville	75	103	71	98	90	126	91	130
Halifax	31	45	31	45	83	115	83	113
Hanover	14	24	15	25	32	44	36	46
Henrico	2	5	2	5	21	28	22	30
Henry	11	21	9	19	88	123	87	123
Highland	95	136	95	136	37	52	31	40
Isle of Wight	44	61	44	62	18	22	17	25
James City	39	54	43	60	5	7	3	5
King and Queen	90	127	92	130	26	35	20	28
King George	71	98	73	100	12	16	16	22
King William	78	106	79	108	20	25	19	27
Lancaster	72	99	76	104	14	18	7	10
Lee	37	51	36	50	41	57	34	43
Loudoun	9	19	10	20	13	17	21	29
Louisa	50	72	52	74	23	30	25	33
Lunenburg	68	95	66	93	74	100	71	96
Madison	73	101	75	103	39	54	40	56
Mathews	82	112	83	114	17	21	8	11
Mecklenburg	32	46	32	46	61	85	50	69
Middlesex	84	114	85	116	16	20	9	12
Montgomery	8	18	8	18	38	53	49	68
Nelson	65	92	65	92	55	78	47	64
New Kent	77	105	81	111	8	10	4	7
Northampton	60	86	60	86	85	119	79	108
Northumberland	80	108	78	106	52	73	28	36
Nottoway	59	85	59	85	81	110	70	94
Orange	49	70	50	72	25	33	24	32
Page	48	68	48	68	50	69	44	61
Patrick	54	78	55	78	72	98	66	90
Pittsylvania	7	17	7	17	70	95	80	110
Powhatan	63	90	63	90	47	63	56	79

Table 3, continued

Locality	Provisional Estimate 1985		Census 1980		Percent Change 1980-85		Net Migration Rate 1980-85	
	City/County	Overall	City/County	Overall	City/County	Overall	City/County	Overall
Prince Edward	56	80	57	81	33	45	30	39
Prince George	36	50	37	51	36	49	76	103
Prince William	3	6	4	8	6	8	13	18
Pulaski	27	41	24	38	86	120	86	119
Rappahannock	92	130	90	127	69	94	68	92
Richmond	87	120	87	121	62	86	45	62
Roanoke	6	15	6	15	59	82	57	80
Rockbridge	53	77	54	77	71	96	74	99
Rockingham	13	23	13	23	45	61	61	84
Russell	29	43	29	43	54	76	67	91
Scott	40	55	39	53	51	71	39	55
Shenandoah	34	48	34	48	64	88	48	67
Smyth	28	42	27	41	78	106	75	102
Southampton	52	75	49	70	87	121	85	117
Spotsylvania	23	37	28	42	4	6	6	9
Stafford	16	27	19	32	2	4	2	4
Surry	91	129	91	128	48	64	62	85
Sussex	76	104	72	99	93	133	93	133
Tazewell	15	25	14	24	67	91	78	107
Warren	45	62	45	63	22	29	23	31
Washington	17	28	16	27	57	80	53	72
Westmoreland	61	87	62	88	66	90	52	71
Wise	19	30	18	30	43	59	59	82
Wythe	41	56	38	52	73	99	69	93
York	21	34	23	37	9	13	10	13
CITIES								
Alexandria	8	13	8	13	14	50	19	66
Bedford	38	128	38	129	15	51	4	15
Bristol	24	76	21	69	39	131	37	125
Buena Vista	37	125	35	122	38	130	36	122
Charlottesville	13	32	14	33	19	67	20	73
Chesapeake	5	10	6	11	4	12	5	16
Clifton Forge	39	132	39	132	28	104	13	50
Colonial Heights	25	81	24	80	23	77	18	65
Covington	31	117	30	109	41	136	41	136
Danville	12	31	12	28	34	118	29	106

Table 3, continued

Locality	Provisional Estimate 1985		Census 1980		Percent Change 1980-85		Net Migration Rate 1980-85	
	City/County	Overall	City/County	Overall	City/County	Overall	City/County	Overall
Emporia	41	134	40	133	35	122	27	101
Fairfax	20	66	19	64	32	114	39	129
Falls Church	30	110	29	107	26	97	28	105
Franklin	33	119	32	118	37	128	40	131
Fredericksburg	22	71	23	76	6	26	7	23
Galax	36	123	36	124	12	40	8	24
Hampton	6	11	5	10	20	70	33	118
Harrisonburg	15	52	15	54	7	27	6	21
Hopewell	16	58	17	56	18	66	26	100
Lexington	35	122	33	119	40	132	34	120
Lynchburg	10	16	10	16	21	72	17	60
Manassas	21	69	25	83	1	2	1	2
Manassas Park	34	121	37	125	8	32	30	109
Martinsville	23	74	22	71	16	56	12	49
Newport News	4	9	4	7	5	23	11	47
Norfolk	2	3	1	2	10	36	21	74
Norton	40	133	41	134	29	107	32	115
Petersburg	14	35	13	31	36	125	38	128
Poquoson	29	109	31	112	3	11	3	6
Portsmouth	7	12	7	12	9	34	14	51
Radford	27	89	27	89	25	92	23	78
Richmond	3	4	3	4	31	113	31	114
Roanoke	9	14	9	14	24	84	22	75
Salem	17	59	16	55	27	102	24	87
South Boston	32	118	34	120	22	74	16	53
Staunton	18	63	18	61	30	111	25	95
Suffolk	11	26	11	26	11	37	9	38
Virginia Beach	1	2	2	3	2	3	2	3
Waynesboro	26	84	26	84	33	117	35	121
Williamsburg	28	100	28	101	13	46	15	52
Winchester	19	65	20	65	17	65	10	44

APPENDIX A. VIRGINIA METROPOLITAN STATISTICAL AREAS

Charlottesville
- Albemarle County
- Fluvanna County
- Greene County
- Charlottesville City*

Danville
- Pittsylvania County
- Danville City*

Johnson City-Kingsport-Bristol (Virginia portion)
- Scott County
- Washington County
- Bristol City*

Lynchburg
- Amherst County
- Campbell County
- Lynchburg City*

Norfolk-Virginia Beach - Newport News
- Gloucester County
- James City County
- York County
- Chesapeake City
- Hampton City*
- Newport News City*
- Norfolk City*
- Poquoson City
- Portsmouth City*
- Suffolk City*
- Virginia Beach City*
- Williamsburg City

*Central City

Richmond-Petersburg
- Charles City County
- Chesterfield County
- Dinwiddie County
- Goochland County
- Hanover County
- Henrico County
- New Kent County
- Powhatan County
- Prince George County
- Colonial Heights City
- Hopewell City
- Petersburg City*
- Richmond City*

Roanoke
- Botetourt County
- Roanoke County
- Roanoke City*
- Salem City

Washington DC-MD-VA (Virginia portion)
- Arlington County*
- Fairfax County
- Loudoun County
- Prince William County
- Stafford County
- Alexandria City
- Fairfax City
- Falls Church City
- Manassas City
- Manassas Park City

APPENDIX B. METHODOLOGY

The estimates presented in this publication are an average of those produced by two separate methods, ratio-correlation and administrative records. This appendix contains brief descriptions of the input data used, each of the methods, the procedure used in averaging the results, and the difference between final and provisional estimates.

INPUT DATA

Input data for each jurisdiction include:

1. The number of federal tax returns filed in the estimating year. These data are obtained from the Bureau of the Census and are not available for release.

2. The number of state tax returns filed in the estimating year, obtained from the Virginia Department of Taxation.

3. Births and deaths by race in the estimating year, obtained from the Virginia Department of Health.

4. The sum of public and nonpublic school enrollment in grades 1-8 in October of the year preceding the estimating year. Public school figures are obtained from the report entitled "Fall Membership in Virginia's Public Schools," issued annually by the Virginia Department of Education. Nonpublic school figures are obtained from an annual survey of these institutions conducted by the Tayloe Murphy Institute and are on the basis of residence. These figures are available for release only on the aggregate level and only where the number of schools drawing students from an area is sufficiently large so that no school's enrollment figures can be derived.

5. Medicare enrollment for the estimating year. The 1980 Census indicated that in many counties adjacent to or surrounding independent cities, this data series contained errors traceable to address coding. Consequently, data for these areas are adjusted to compensate for these errors. Medicare data are obtained from the Bureau of the Census, which in turn obtains the series from the Social Security Administration. The data are administratively restricted until released by the SSA.

6. The number of persons residing in military barracks and on non-deployed ships. These data are obtained from the Bureau of the Census, which in turn receives them from the Department of Defense. By special permission of the Department of Defense, they are available for release only to local planning district staff and officials.

7. The number of persons permanently or quasi-permanently residing in institutions with populations of approximately 50 or more. These data are obtained from a variety of sources, including the Virginia Department of Corrections, the Virginia Department of Mental Health, and the institutions themselves. Included are long-term health care facilities, long-term correctional institutions, and residents of college and university dormitories. Nursing homes are not included because their residents are usually represented by other data, particularly Medicare enrollment.

The Tayloe Murphy Institute is currently petitioning for permission to release restricted data. It is hoped that in the future only the school-by-school nonpublic enrollment figures will be restricted.

THE RATIO-CORRELATION METHOD

The ratio-correlation method uses a prediction equation generated by regression analysis, a statistical technique which measures the relationship between one or more indicator variables and a dependent variable. For use in estimating the population, a new equation is generated once every ten years, using Census population as the dependent variable. This equation takes the form

$$\text{Estimated } Y = \pm b1(X1) \pm \ldots \pm bn(Xn) \pm C$$

where each b is a regression coefficient, each X is an indicator variable, C is the constant, and Estimated Y is the dependent variable. For Virginia, the current coefficients and indicator variables are:

Federal tax returns filed in the estimating year	0.051
State tax returns filed in the estimating year	0.278
Births by residence in the estimating year and the two preceding years	0.117
Public and nonpublic school enrollment in grades 1-8 in the Fall preceding the estimating year	0.413
Constant	0.127

These variables are used in the equation in a double ratio form, in which each locality's share of the state total in the estimating year is compared to its share of the state total in the base year (the year in which the equation was developed). For example, in producing an estimate for 1985, the form of the state tax return indicator is

$$\frac{\text{(Tax returns for the locality, 1985)}}{\text{(Tax return for the state, 1985)}} \div \frac{\text{(Tax return for the locality, 1980)}}{\text{(Tax returns for the state, 1980)}}$$

After multiplying each of these double ratios by its coefficient and adding the constant, mathematical adjustments are made to allow for the time elapsed between the base year and the estimating year. The resulting estimate is not a population figure; rather it is the percentage of the state's total noninstitutional population that will be allocated to the locality. These percentages are adjusted to equal 100.0, and the adjusted percentage is multiplied by the state total. The final step is to add institutional populations to obtain an estimate of the total population.

It is important to realize that ratio-correlation does not involve a one-to-one correspondence between each indicator variable and the population estimate. That is, a coefficient of 0.413 in no sense indicates that for every student in grades 1-8, 0.413 of a person will be added to the estimate. Similarly, although it may seem that each

person in the institutional population constitutes one person in the estimate, this is not the case. Because the equation is derived using the base year noninstitutional population, the amount of change in the institutional population between the base and estimating years is actually more important than the numbers themselves.

THE ADMINISTRATIVE RECORDS METHOD

The administrative records method uses births and deaths by race to estimate natural increase between 1980 and the estimating year for each locality. A matrix of federal tax return data is then used to estimate net migration, and together these elements produce an estimate of the non-group quarters population under the age of 65. Adjusted Medicare enrollment is then used to estimate the population 65 and over, and institutional and barracks populations are added to produce a total population estimate. Since the federal tax return data used in producing the net migration estimates are confidential, this method is calculated at the Bureau of the Census.

THE SUMEST PROCEDURE

The sumest procedure averages and adjusts the ratio-correlation and administrative records estimates. In this procedure, the administratvie records estimates are adjusted to equal the state estimate produced independently by the Bureau of the Census. (This adjustment is not needed for ratio-correlation, since adjusting the percentages to equal 100.0 has already performed this function.) The results of each method are then further adjusted for any special censuses that have taken place. The two estimates are then averaged, and if necessary, a very small adjustment is performed to adjust one final time to the State total.

PROVISIONAL VS. FINAL ESTIMATES

The differences between the provisional and final estimates for a given year are produced by differences in the input data and the population total for the State. Normally, at the time the estimates are being generated, final figures for births, deaths, and Medicare enrollment are not available for the provisional estimate. Therefore, these quantities must themselves be estimated. For similar reasons, the Bureau of the Census produces a population estimate for the State that will, in all likelihood, be revised a year later. Consequently, although the provisional estimates are more timely than the final estimates, they are also less accurate.